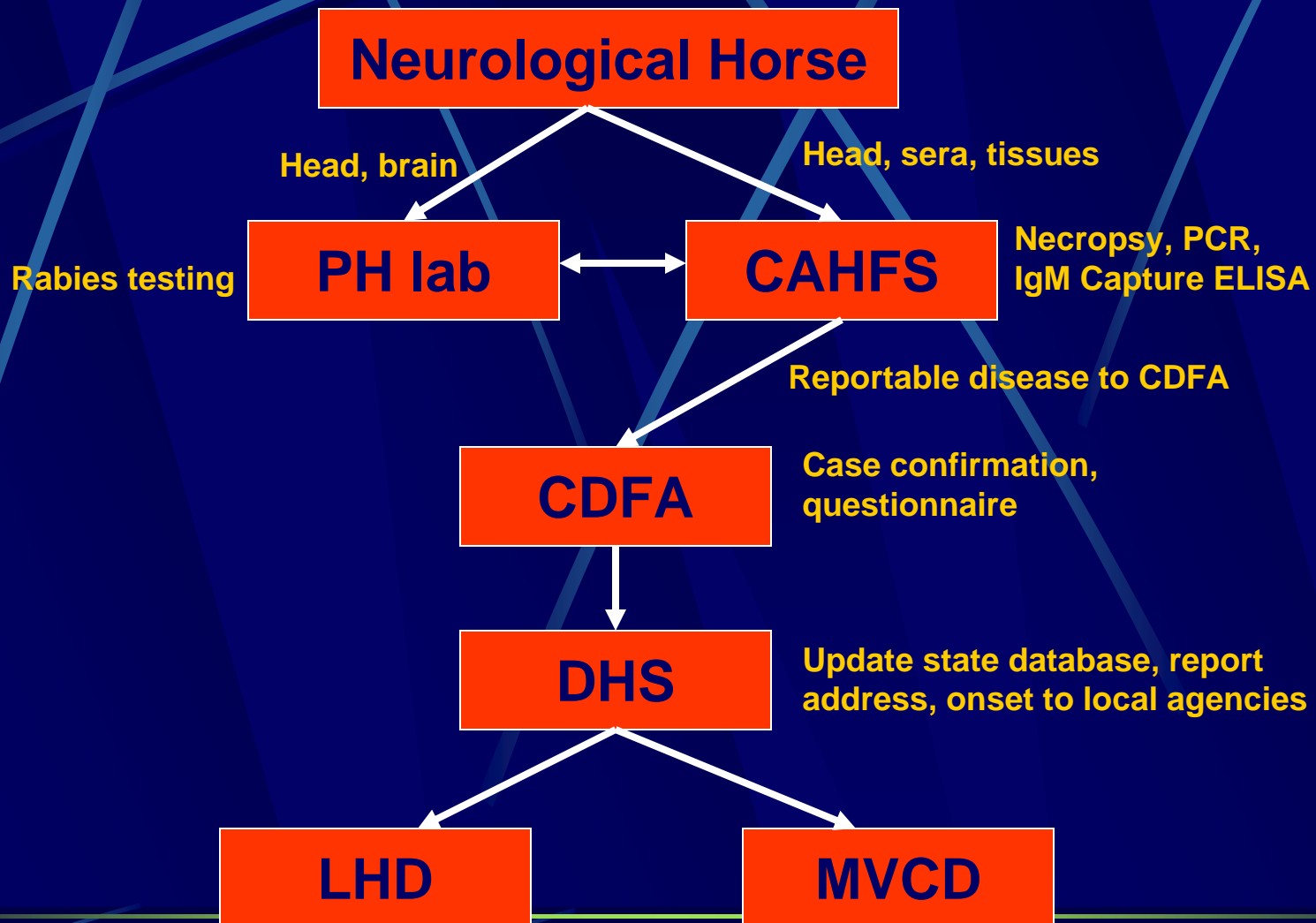


Equine West Nile Virus ● 2005 Surveillance Summary

Ben Sun, DVM, MPVM
CA. Dept. of Health Services

Equine WNV Surveillance





West Nile Virus is Here!



Protect your horse!

Vaccinate today!

California became the focus for West Nile Virus (WNV) in 2 clinical equine cases. Over 40 percent of clinically affected euthanized. In 2004, WNV was detected in all California counties.

The virus has already been detected in 2005 in numerous counties. Disease Control and Prevention has predicted that California will have WNV.

WNV is a mosquito-borne disease. Minimizing exposure to mosquitoes at dusk, applying insect repellent, and eliminating sources of standing water reduce the chances of your horse being exposed to WNV.

Once WNV is introduced into an area, the disease is likely to spread. WNV vaccination is crucial to ensure your horse's health. Guidelines are as follows: an initial series of two WNV vaccinations followed by annual boosters. Horses are not fully protected until they have had two vaccinations and are up to date with booster vaccinations. The number of vaccinations may vary depending on seasonal climate and horse owners are urged to contact their veterinary practitioner for status of their horse is current.

For more information on West Nile Virus in horses, call the information line 1-800-268-7378.



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE

Animal Health and Food Safety Services
Animal Health Branch

Equine West Nile Virus in California

An Update for California Horse
Owners



2005

Outreach Efforts

- Veterinarians
- Feed Stores
- Breeders
- Trainers
- Horse Associations
- ~90,000 flyers,
60,000 brochures
(5,000 Spanish),
21,500 posters
- DHS and CDFA
websites
- San Joaquin DVD
distribution
- WNV hotline



West Nile Virus is Here!



Protect your horse!

Vaccinate today!

California became the focus for West Nile Virus (WNV) in 2004 with 540 confirmed clinical equine cases. Over 40 percent of clinically affected horses died or were euthanized. In 2004, WNV was detected in all California counties.

The virus has already been detected in 2005 in numerous counties. The Center for Disease Control and Prevention has predicted that California will again be the epicenter

Publications

May

-7 Trade
Magazines ran an
WNV information
Article

June

-5 Trade
Magazines
printed WNV
flyer

CVMA articles

WEST NILE VIRUS IS IN CALIFORNIA! PROTECT YOUR HORSES NOW! By Dr. Katie Wetherall

West Nile Virus

West Nile Virus (WNV) is a mosquito-borne virus that was first detected in the United States in 1999 in the New York City area. The virus has since been identified in all 48 continental states and the District of Columbia. West Nile Virus may cause a wide range of clinical illness from mild, "flu-like" symptoms, to encephalitis (inflammation of the brain) that may be fatal to both humans and horses. While horses are susceptible to WNV, many horses infected with the disease will not develop any illness and will recover uneventfully. Currently, there is no specific treatment for WNV.

Virus Life Cycle

Mosquitoes acquire WNV from infected birds and pass it on to other birds, animals, and people. Mosquitoes have not demonstrated the ability to feed on an infected horse and ingest enough of the virus to transmit it to other animals. Migratory birds are an important reservoir for WNV and have served as the major vector for spread of the virus into new areas.

Clinical Signs

Consult your veterinarian if your horse exhibits any of the following signs:

- Incoordination, especially in rear limbs causing stumbling and falling
- Drooping lips and lip smacking
- Generalized weakness
- Muscle twitching
- Head drooping, lethargy, and unresponsiveness
- Grinding teeth
- Hypersensitivity to touch or sound
- Fever
- Recumbency (inability to rise)
- Seizures and coma

California Surveillance Efforts

The California Department of Food and Agriculture (CDFA) works with federal, state and local health and agricultural agencies to minimize the impact of WNV on both humans and horses. West Nile Virus surveillance includes sampling dead birds, sentinel chickens, mosquito pools, horses, and humans.

CDFA confirms possible equine WNV cases, maintains horse surveillance data, and educates horse owners on control and prevention. The information collected is used by collaborating agencies to focus disease control efforts.



California Outbreak

West Nile Virus was first diagnosed in October 2003 in a 20 year-old unvaccinated Missouri Fox Trotter. In 2004, California became the disease epicenter with 540 confirmed clinical cases of WNV. All confirmed cases were laboratory positive and demonstrated compatible clinical signs. Cases affected 32 of the 58 counties. A high percentage of these horses died or were euthanized. Only 22 of the 540 cases were reported to be fully vaccinated.

The virus has already been detected in 2005 in numerous counties. The Centers for Disease control and Prevention has predicted California will again be the epicenter for WNV. Protect yourself and horses today.

Vaccination

There are currently two approved WNV vaccine products available for horses. An initial series of at least two vaccinations, followed by periodic 'booster' injections is required with each. Horses are not fully protected until they have had two initial injections and are up to date with booster vaccinations. The number and timing of booster vaccinations may vary depending on seasonal climate and geography. Horse owners are urged to consult their veterinary practitioner to ensure the vaccination status of all their horses is current.

Mosquito Control

You can effectively decrease the chances of your horse being exposed to WNV by minimizing their exposure to mosquitoes, especially during the peak mosquito-feeding period, which is dusk to dawn. Applying mosquito repellent also effectively reduces the number of mosquito bites.

- Mosquito breeding sites should also be eliminated. Methods for eliminating mosquito breeding sites include:
- Draining unnecessary standing water: wheelbarrows, tires, etc.
 - Cleaning water containers: bird baths, plant saucers, etc. at least weekly
 - Scheduling pasture irrigation to minimize standing water
 - Keeping swimming pools optimally chlorinated and drain water from covers
 - Stocking water tanks with fish that consume mosquito larvae (local mosquito control may provide assistance) or use mosquito "dunk" available at hardware stores.

For more information contact:

CDFA Equine West Nile Information Line
CDFA West Nile Virus Web Site

1-800-268-7378
http://www.cdffa.ca.gov/ahfss/ah/wnv_info.htm

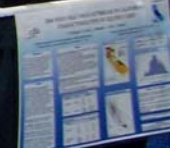
General California West Nile Virus Hotline
General California West Nile Virus Web Site

1-877-WNV-BIRD
www.westnile.ca.gov



California Department of Food & Agriculture

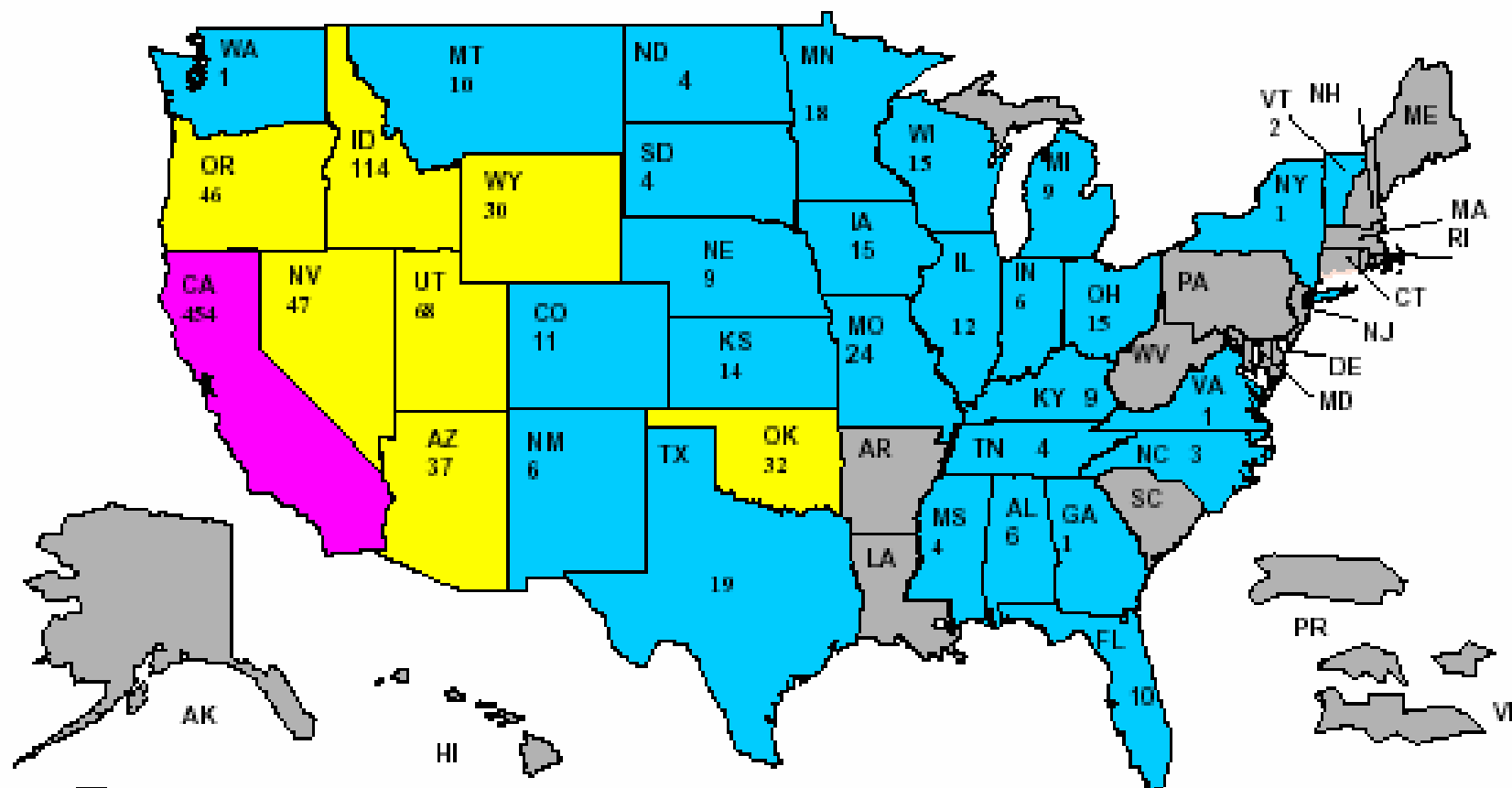
WWW.CDFA.CA.GOV



West Nile Virus in 2005

States with an Equine Case(s)

Total Cases 1,061





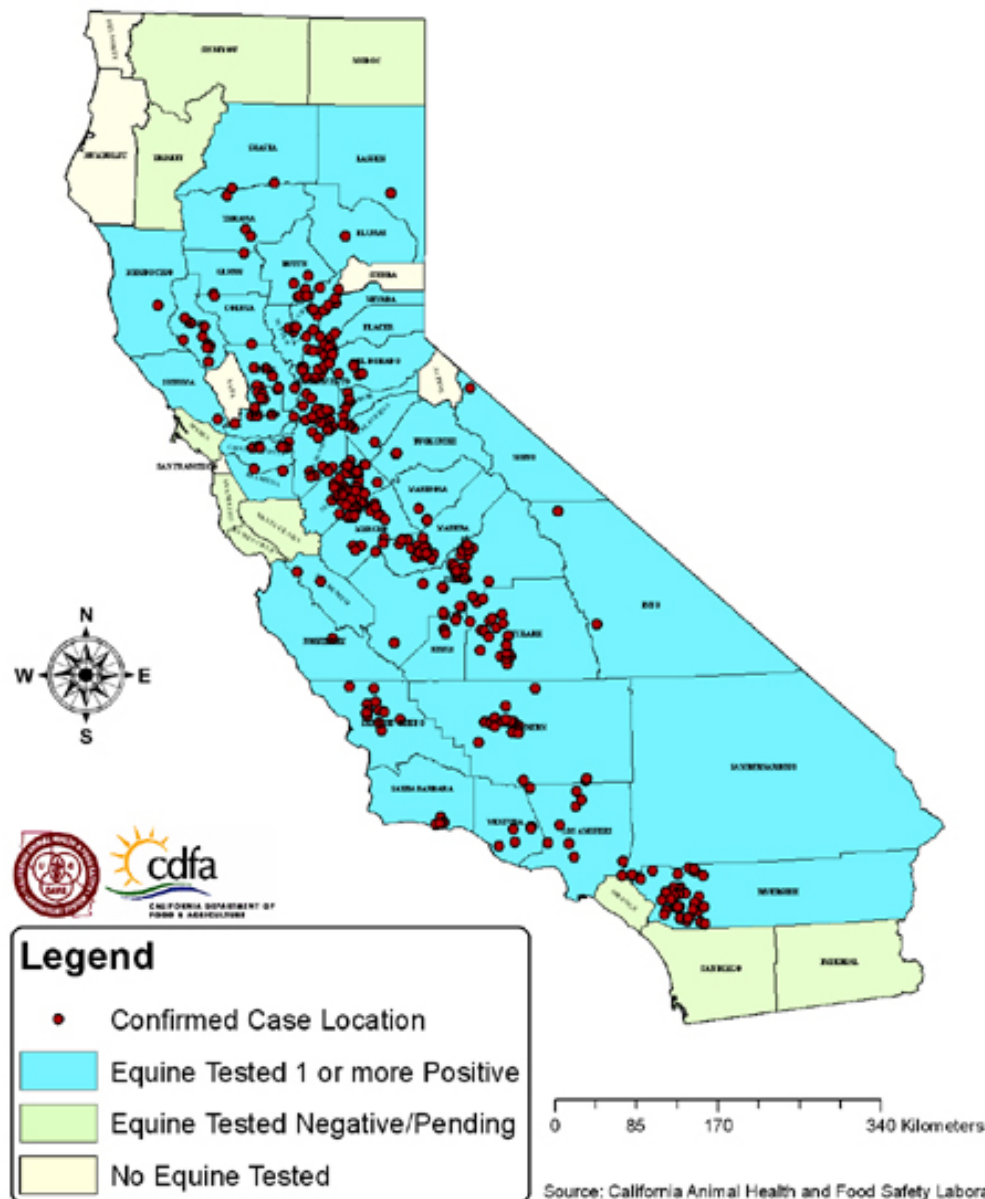
2005 CA. Data Summary

Confirmed Equine Cases

Total Cases	454
Total Horses Tested	1,188
Euthanized or Dead	199
Completely Vaccinated	19
Median Age	13 years
Age Range	4mo- 40yrs
Mares	51%

2005 Equine West Nile Surveillance Results

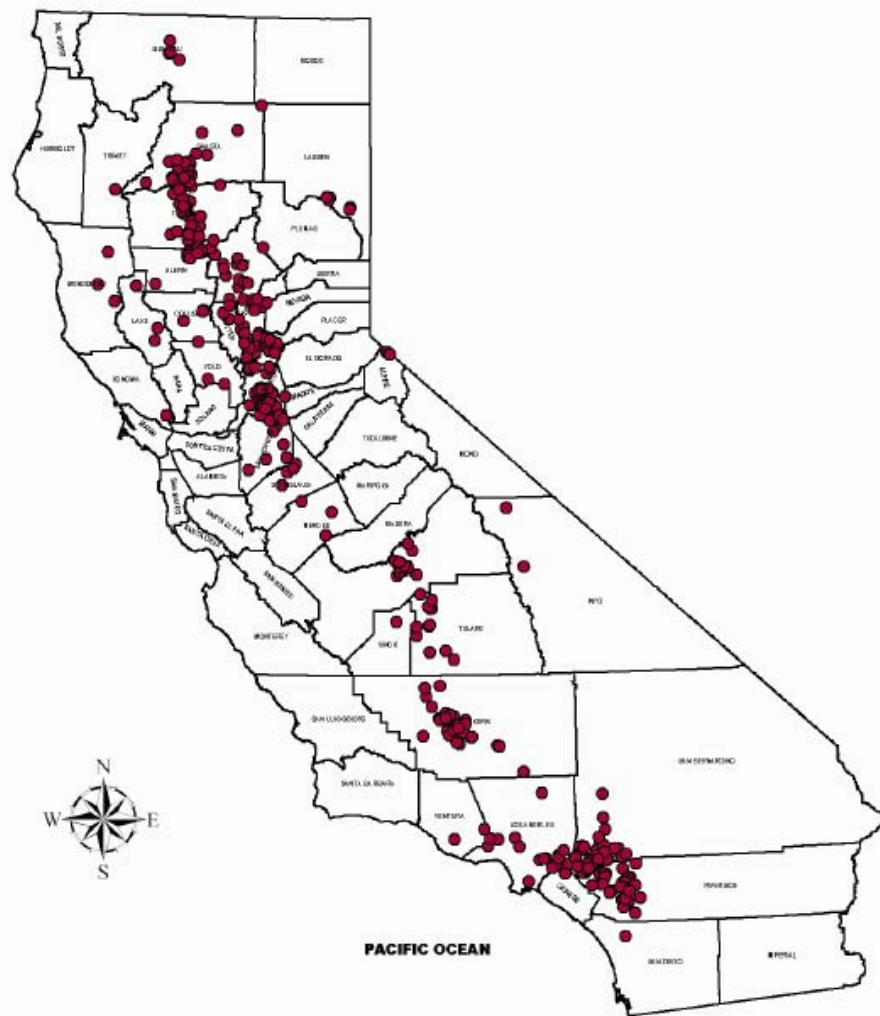
447 WNV confirmed cases as of October 20, 2005



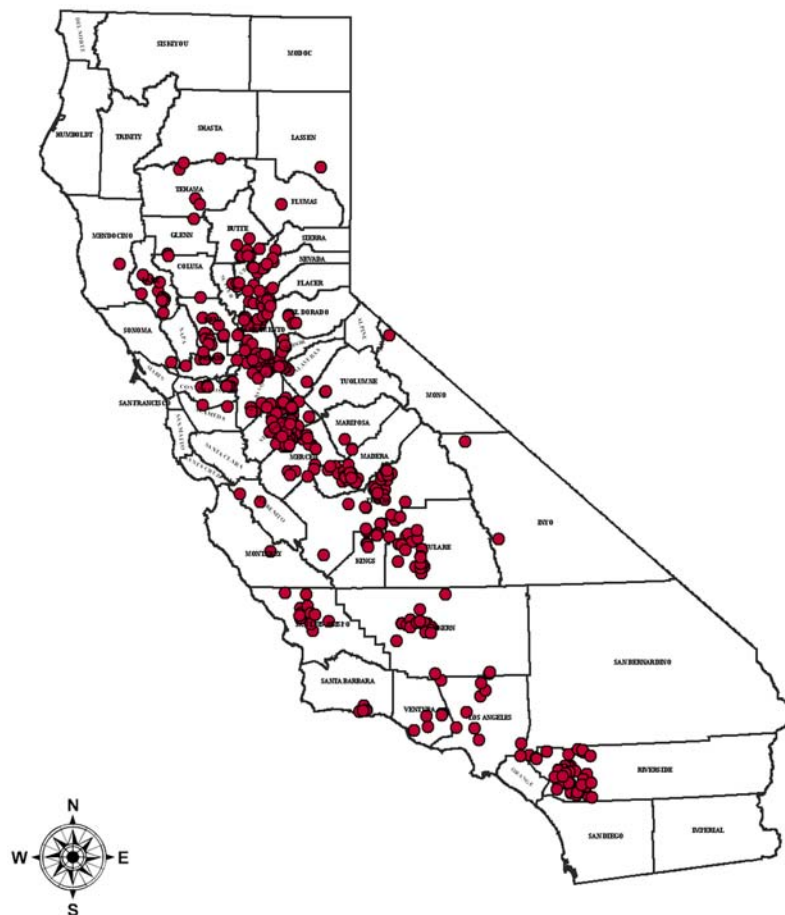
2004

2005

2005 Equine West Nile Surveillance Results



50 25 0 50 100 150 200
Kilometers



0 85 170 340 Kilometers

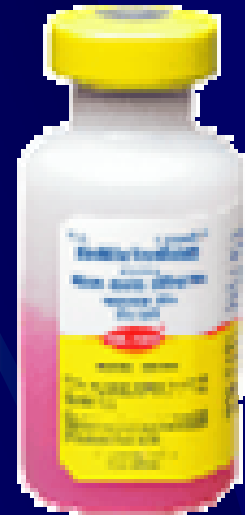
Source: California Animal Health and Food Safety Laboratory

Surveillance Successes

- **Faster notification to local health departments and vector control agencies (1-3 days average)**
- **Enhanced outreach to veterinarians and industry**

Surveillance Challenges

- **Utility of equids for WNV surveillance as more become vaccinated**
- **Underreporting issues**





Questions ?

- Dr. James Glover
- Dr. Ben Sun
- Dr. Katie Weatherall